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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,453

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Martina Koenig

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EXAMINER

SMITH, PRESTON

ART UNIT

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4152

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,453	<b>Applicant(s)</b> KOENIG ET AL.	
	<b>Examiner</b> PRESTON SMITH	<b>Art Unit</b> 4152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/2/2005</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

This action is responsive to the non-provisional application filed on September 22, 2003.

Claims 1-18 are pending. Claim 1 is independent.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1-10, 11, 12, 15-18 rejected under 35 U.S.C. 102(e) as being anticipated by William W. Yen's US Patent 6,589,615. Referring to claim 1, Yen teaches
  - a.) A porous food casing that contains interconnected interstices (or matrices) and thermoplastics (abstract). The casing that is taught also contains a porosity modifier (a filler) embedded in the casing that allows for the transfer of food additives (column 2- line 3-15) and the casing can act as a barrier for water vapor or air (column 2- line 16). The porosity modifier used is also organic (nylon) or can be used with a combination of organic substances like soybean oil in combination with polymer materials (column 2 – line 27-45) The casing taught by Yen can also be multilayer. (column 3, line 4-5).

2. Referring to claim 2, Yen teaches a food casing wherein the food additive is a transferable, liquid, colorant, odorant, flavoring, and/or decorative medium. (column 3, line 31-38).

3. Referring to claim 3 (which depends on claim 1), it would be inherent that the filler would swell and transfer food additives in the temperature range of 0°C to 40°C as well as undergo partial dissolution in the temperature range of 40°C to 100°C because the filler in Yen contains all of the physical properties of claim 1.

4. Referring to claim 4, Yen teaches a food casing wherein the porosity modifier is a natural material. Soy bean oil, peanut oil, etc. are all natural materials. (abstract)

5. Referring to claim 5, Yen teaches a food casing wherein the particles of the filler have, prior to addition of the food additive, a  $d(0.5)$  value of less than 20 micro meters for a filler-substrate layer thickness of from 60 to 100 micro meters, and a  $d(0.5)$  value less than 50 micro meters for a filler-substrate layer thickness of from 100 to 200 micro meters. Yen states a range of 0.5 to 15 mil for the casing which would allow for the filler to have a thickness of less than 20 micro meters and less than 50 micrometers. (column 2, line 12-13, column 3, line 6-8).

6. Referring to claim 6, Yen teaches that the proportion of the organic porosity modifier can be up to 60% by weight based on the total weight of the filler (column 3, line 16-19). It is inherent that if the proportion of the organic porosity modifier by weight based on the total weight of the filler is 0-60%, and the amount of organic porosity modifier in the casing can be from 5 to 95% of the weight of the total weight of the casing in Yen, then it can be assumed that the proportion of the organic porosity

modifier can be up to 60% by weight based on the total weight of the filler(column 3, line 16-19)..

7. Referring to claim 7, Yen teaches a food casing wherein the proportion of the transferable food additive is from 5 to 150% by weight, based on the weight of the filler. It is inherent that if the transferable food additive is 5 to 150% by weight based on the weight of the filler, and, in Yen, it is taught that the amount of flavorants and/or fragrances that are transferable is between 1 to 80 % of the total weight of the casing, then it can be assumed that the amount of transferable food additive is 5 to 150% by weight based on the filler (column 3, line 35-37)

8. Referring to claim 8, Yen teaches a food casing wherein the transferable food additive is a liquid smoke (column 2, line 36).

9. Referring to claim 9, Yen teaches a food casing wherein the inner filler- substrate layer of the tube film comprises a polymer matrix whose water vapor permeation coefficient  $P_{m0}$  is in the range from 3 to 20 g/m<sup>2</sup> d since. Yen teaches that the water vapor permeability range can be between 1 to 1500 gms/m<sup>2</sup>/min (this number overlaps with 3 to 20 g/m<sup>2</sup>d) so this is taught by Yen (abstract).

10. Referring to claim 10, Yen teaches a food casing wherein the matrix or interstices consist of an ethylene-vinyl copolymer (ethylene-vinyl acetate copolymer is an ethylene-vinyl copolymer). (column 2, line 46-50).

11. Referring to claim 11, Yen teaches a food casing wherein the proportion of ethylene-vinyl copolymer units in the ethylene-vinyl copolymer is from 5 to 50% by weight of the filler(column 2, line 50-51). It would be inherent that if 5 to 95% by weight

of the total casing is a thermoplastic, and the thermoplastic in question contains ethylene-vinyl copolymers (column 2, line 46-49), then it can be assumed that the ethylene-vinyl copolymer will be from 5 to 50% of the weight of the filler.

12. Referring to claim 12, Yen teaches a food casing wherein the interstices of the filler contains a polymer mixture (an admixed compatibilizer is a polymer mixture) (column 2, line 4-6).

13. Referring to claim 15, Yen teaches a food casing that contains a layer based on polyethylene (which is a polyofien) that is adjacent to the filler-substrate layer and acts as barrier layer for water vapor. (column 2, line 15-16).

14. Referring to claim 16, it is inherent that a food casing comprising at least one layer which is based on polyamide and/or copolyamide will act as a barrier layer for oxygen (column 2, 46-48).

15. Referring to claim 17, Yen teaches that the casing can be used for meats and sausage is a meat so Yen teaches a sausage casing comprising a food casing (column 2, line 34)

16. Referring to claim 18, Yen teaches a food casing wherein the natural material is pulverulent carrageenan, agar, soybean protein, ground carob beans, native starch, destructured starch, modified starch, or mixtures thereof (abstract, column 2, line 42-45).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 13 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over William W. Yen's US-Patent 6,589,615. Yen teaches the invention described in claims 1-10,11,12,15-18. Yen fails to teach grafting a compatibilizer molecule that is from 0.1 to 10% by weight from peroxide-radical initiation (claim 13) and using a compatibilizer molecule that is a maleic-anhydride-or glycidyl-methacrylate-grafted ethylene-vinyl acetate copolymer (claim 14).

1. Referring to claim 13, it would have been obvious to one having ordinary skill in the art at the time the invention was made to describe the modification of grafting a compatibilizer molecule that is from 0.1 to 10% by weight from peroxide-radical initiation, since it has been held to be within the general skill of a worker in the art to

select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choices. *In re Leshin*, 125 USPQ 416.

Referring to claim 13, a compatibilizer molecule that has been grafted, following peroxide-radical initiation, is a product by process claim. "Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."(*In re Thorpe*, 227 USPQ 964,966)

2. Referring to claim 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to describe the modification of using a compatibilizer molecule that is a maleic-anhydride-or glycidyl-methacrylate-grafted ethylene-vinyl acetate copolymer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choices. *In re Leshin*, 125 USPQ 416.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRESTON SMITH whose telephone number is (571)270-7084. The examiner can normally be reached on Monday-Thursday 6:30am-5.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joeseeph Del Sole can be reached on (571) 272-1130. The fax phone



number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000

/Joseph S. Del Sole/

Supervisory Patent Examiner, Art Unit 4152